

SMALL VOLUME WATER COLUMN NARRATIVE

The following information summarizes the collected samples and requested analyses for the Lower Passaic River Restoration Project Small Volume Water Column Program. This water column program is also described in Section 6.0 of the Field Sampling Plan (FSP) Volume 1 (Malcolm Pirnie, Inc., January 2006).

SUMMARY OF SMALL VOLUME WATER COLUMN PROGRAM

To meet the data needs and objectives described in FSP Volume 1, the following steps were implemented to conduct the small volume water column program:

- Evaluate available hydrodynamic data, including the mooring deployed by Rutgers University (2004-2005) and moorings deployed by Malcolm Pirnie, Inc. to support the 2004-2006 United States Environmental Protection Agency (USEPA) hydrodynamic sampling program.
- Collect small volume water column samples from five locations on the Lower Passaic River and at the head-of-tide on Second River, Third River, and Saddle River.
- Small volume water column grab samples include discrete grab samples and composite samples from the surface water (above the salt wedge) and deep water (below the salt wedge).
- All samples were preserved and shipped immediately to their respective laboratories for analyses.

All field work was conducted in accordance with the Lower Passaic River Restoration Project Work Plan (Malcolm Pirnie, Inc., January 2006) and the Lower Passaic River Restoration Project Quality Assurance Project Plan (Malcolm Pirnie, Inc., August 2005) and accompanying addendums.

DETAILS OF THE SMALL VOLUME WATER COLUMN PROGRAM

As part of the 2004-2006 USEPA hydrodynamic sampling program, Malcolm Pirnie, Inc. collected small volume water column samples from four locations on the Lower Passaic River on November 8, 2005. Additional small volume water column samples were collected at Ackerman Avenue Bridge on the Lower Passaic River and from the head-of-tide on Second River, Third River, and Saddle River on November 10, 2005. These locations were selected to correspond to mooring locations and other water column samples being collected under the hydrodynamic program.

To sample the Lower Passaic River simultaneously, four boats were stationed along the river at river miles (RM) 1.0, RM2.5, RM4.5, and RM10.5. Each boat crew was assigned to collect water samples along a transect at its designated river mile. Each transect included five surface locations positioned 1 meter from the water surface (designated as nodes: S1, S2, S3, S4, and S5) and three corresponding bottom locations positioned 1 meter from the river bottom (designated as nodes: S2D, S3D, and S4D). The surface water samples were designed to represent freshwater above the salt wedge, and the deep water samples were designed to represent brackish water in the salt wedge. Refer to Table 1 for a summary of sampling locations.



Note that nodes were adjusted in the field to account for the position of the salt wedge at each river mile transect. For example, salinity measurements indicated that the salt wedge was not present at RM10.5 on November 8, 2005; consequently, the field crew only collected surface water samples at this river mile transect. In addition, to capture the incoming tidal cycle, each boat conducted three passes at each river mile transect (when possible). The first pass (designated as T1) occurred approximately at 8:00AM (eastern standard time), the second pass (designated as T2) occurred approximately at 11:00AM (eastern standard time), and the third pass (designated as T3) occurred approximately at 2:00PM (eastern standard time). Note that the third pass for the boat at RM2.5 occurred much later than 2:00PM (eastern standard time) and captured the outgoing tide.

Table 1: Sampling Locations on the Lower Passaic River for the Small Volume Water Column Program

Boat Name	River Mile	Location Name	X-Coordinate	Y-Coordinate
Boat 1	RM1.0	S1	597164	689294
		S2	597243	689258
		S3	597340	689173
		S4	597451	689131
		S5	597627	689113
		S2D	597243	689258
		S3D	597340	689173
		S4D	597451	689131
Boat 2	RM2.5	S1	595714	695778
		S2	595699	695699
		S3	595689	695607
		S4	595676	695500
		S5	595646	695403
		S1D	595714	695778
		S2D	595699	695699
		S3D	595689	695607
Boat 3	RM4.5	S1	586709	692365
		S2	586744	692403
		S3	586769	692465
		S4	586799	692489
		S5	586828	692532
		S2D	586744	692403
		S3D	586769	692465
		S4D	586799	692489
Boat 4	RM10.5	S1	592216	721791
		S2	592258	721799
		S3	592300	721799
		S4	592342	721799
		S5	592384	721807

Depending on the analyte of interest, water column samples were collected as either discrete grab samples to represent a node or as a composite sample to represent all five nodes along the transect. All mercury/methylmercury samples were collected following a clean-hands method outlined in Standard Operating Procedure #20 “Ultra-clean Water Sampling Procedures for Mercury.” Metals samples were filtered and preserved at a field facility before shipment whereas the mercury/methylmercury samples were shipped as whole water samples and filtered by the laboratory following a clean-hands method.

Table 2 lists the sample types for each analyte of interest and the laboratory that conducted the analysis.

Table 2: Sample Types for Each Analyte of Interest

Analyte	Sample Type	Laboratory Name	Laboratory Location
Dissolve Organic Carbon	Composite	Severn Trent Laboratory	Edison, New Jersey
Mercury and Methylmercury	Composite	Brooks Rand, Inc.	Seattle, Washington
Metals (Filtered and Total)	Composite	Sentinel, Inc.	Huntsville, Alabama
Particulate Organic Carbon	Composite	Severn Trent Laboratory	South Burlington, Vermont
Ammonia	Grab	Severn Trent Laboratory	South Burlington, Vermont
Biological Oxygen Demand	Grab	Severn Trent Laboratory	Edison, New Jersey
Chlorinated Herbicide	Grab	Severn Trent Laboratory	South Burlington, Vermont
Chlorophyll A	Grab	Severn Trent Laboratory	Westfield, Massachusetts
Chemical Oxygen Demand	Grab	Severn Trent Laboratory	South Burlington, Vermont
Cyanide	Grab	Sentinel, Inc.	Huntsville, Alabama
Orthophosphate	Grab	Severn Trent Laboratory	Edison, New Jersey
Total Kjeldahl Nitrogen	Grab	Severn Trent Laboratory	South Burlington, Vermont
Total Phosphorous	Grab	Severn Trent Laboratory	South Burlington, Vermont
Total Suspended Solids	Grab	Severn Trent Laboratory	South Burlington, Vermont
Semivolatile Organic Compounds	Grab	A4 Scientific, Inc.	Woodslands, Texas
Volatile Organic Compounds	Grab	A4 Scientific, Inc.	Woodslands, Texas

Tributary sampling was conducted on November 10, 2005 at the head-of-tide of Second River, Third River, and Saddle River. An additional water column sample was collected at Ackerman Avenue Bridge, which is located at RM17 on the Lower Passaic River, to represent water quality and contaminant loads from Dundee Dam (located at RM17.4). For these four locations, samples were only collected at one node (15 centimeters from with the water surface); consequently, all samples represent discrete grab samples. Unlike the simultaneous field work that was conducted on the Lower Passaic River on November 8, 2005, the sampling event on November 10, 2005 was conducted consecutively. Third River was sampled first, then Second River, Ackermann Bridge, and finally Saddle River. Moreover, only one sampling pass was performed at each location regardless of tide. Table 3 summarizes the sampling locations for the November 8, 2005 small volume water column program. All samples were processed following the same procedure for the November 8, 2005 sampling event and were shipped to the laboratories listed in Table 2.

Table 3: Tributary Sampling Locations for the Small Volume Water Column Program

Field Location	X-Coordinate	Y-Coordinate
Second River	583036	712150
Third River	591281	727264
Saddle River	608071	749546
Ackermann Bridge (surrogate Dundee Dam)	596965	746111

A program summary, including sample identification numbers, for all the samples collected on November 8 and 10, 2005 is provided in Attachment 1. Data corresponding to these samples are available in the project database. Samples can be readily queried by making the “Sample_Type” field equal to SVCG in the *dbo_viewSampleDownloadTable* table in the database. The comment field includes the boat number, river mile, node, and pass in an abbreviated format as well as the status of metals (*e.g.*, total or dissolved).

FIELD PARAMETERS

During the small volume water column program, the field crew also collected water quality parameters using a Horiba probe and Secchi disk. These parameters consisted of conductivity, turbidity, dissolved oxygen, temperature, salinity, oxidation potential, pH values, and Secchi disk depth. Field measurements are provided in Attachment 2.

ATTACHMENT 1

Program Summary

Attachment 1: Program Summary
Small Volume Water Column Program
(November 8 and 10, 2005)

Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T1	S1-S5	Composite	Dissolved Organic Carbon (DOC)	C0001655	LPRP-SVCG-PSR-000072
T1	S2D-S4D	Composite	Dissolved Organic Carbon (DOC)	C0001657	LPRP-SVCG-PSR-000084
T1	S2D-S4D	Composite	Mercury/Methylmercury Filter	C0002321	LPRP-SVCG-PSR-000086
T1	S1-S5	Composite	Mercury/Methylmercury Filter	C0002323	LPRP-SVCG-PSR-000075
T1	S1-S5	Composite	Mercury/Methylmercury Total	C0001594	LPRP-SVCG-PSR-000074
T1	S2D-S4D	Composite	Mercury/Methylmercury Total	C0001597	LPRP-SVCG-PSR-000085
T1	S2D-S4D	Composite	Metals Filter	C0001680	LPRP-SVCG-PSR-000081
T1	S1-S5	Composite	Metals Filter	C0001681	LPRP-SVCG-PSR-000083
T1	S2D-S4D	Composite	Metals Total	C0001611	LPRP-SVCG-PSR-000082
T1	S1-S5	Composite	Metals Total	C0001615	LPRP-SVCG-PSR-000071
T1	S2D-S4D	Composite	Particulate Organic Carbon (POC)	C0001605	LPRP-SVCG-PSR-000080
T1	S1-S5	Composite	Particulate Organic Carbon (POC)	C0001606	LPRP-SVCG-PSR-000073
T1	S5	Grab	Total Suspended Solids (TSS)	C0001646	LPRP-SVCG-PSR-000079
T1	S3	Grab	Total Suspended Solids (TSS)	C0001647	LPRP-SVCG-PSR-000077
T1	S2D	Grab	Total Suspended Solids (TSS)	C0001648	LPRP-SVCG-PSR-000087
T1	S4D	Grab	Total Suspended Solids (TSS)	C0001649	LPRP-SVCG-PSR-000089
T1	S1	Grab	Total Suspended Solids (TSS)	C0001650	LPRP-SVCG-PSR-000069
T1	S2	Grab	Total Suspended Solids (TSS)	C0001651	LPRP-SVCG-PSR-000076
T1	S3D	Grab	Total Suspended Solids (TSS)	C0001652	LPRP-SVCG-PSR-000088
T1	S4	Grab	Total Suspended Solids (TSS)	C0001653	LPRP-SVCG-PSR-000078
Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T2	S3	Grab	Ammonia	C0001644	LPRP-SVCG-PSR-0000116
T2	S3D	Grab	Ammonia	C0001645	LPRP-SVCG-PSR-0000131
T2	S3	Grab	Biological Oxygen Demand (BOD)	C0001601	LPRP-SVCG-PSR-000110
T2	S3D	Grab	Biological Oxygen Demand (BOD)	C0001602	LPRP-SVCG-PSR-000125
T2	S3	Grab	Chlorinated Herbicides	C0001690	LPRP-SVCG-PSR-000114
T2	S3D	Grab	Chlorinated Herbicides	C0001691	LPRP-SVCG-PSR-000129
T2	S3	Grab	Chlorophyll A	C0001684	LPRP-SVCG-PSR-000115
T2	S3D	Grab	Chlorophyll A	C0001685	LPRP-SVCG-PSR-000130
T2	S3	Grab	COD/TKN/Total P	C0001642	LPRP-SVCG-PSR-000108
T2	S3D	Grab	COD/TKN/Total P	C0001643	LPRP-SVCG-PSR-000123
T2	S3	Grab	Cyanide	C0001604	LPRP-SVCG-PSR-000113
T2	S3D	Grab	Cyanide	C0001603	LPRP-SVCG-PSR-000128
T2	S1-S5	Composite	Dissolved Organic Carbon (DOC)	C0001654	LPRP-SVCG-PSR-000103
T2	S2D-S4D	Composite	Dissolved Organic Carbon (DOC)	C0001656	LPRP-SVCG-PSR-000121
T2	S1-S5	Composite	Mercury/Methylmercury Filter	C0002324	LPRP-SVCG-PSR-000099
T2	S2D-S4D	Composite	Mercury/Methylmercury Filter	C0002320	LPRP-SVCG-PSR-000118
T2	S1-S5	Composite	Mercury/Methylmercury Total	C0001595	LPRP-SVCG-PSR-000098
T2	S2D-S4D	Composite	Mercury/Methylmercury Total	C0001598	LPRP-SVCG-PSR-000117
T2	S1-S5	Composite	Metals Filter	C0001677	LPRP-SVCG-PSR-000100
T2	S2D-S4D	Composite	Metals Filter	C0001679	LPRP-SVCG-PSR-000120
T2	S1-S5	Composite	Metals Total	C0001613	LPRP-SVCG-PSR-000102
T2	S2D-S4D	Composite	Metals Total	C0001612	LPRP-SVCG-PSR-000122
T2	S3	Grab	Ortho-Phosphate	C0001686	LPRP-SVCG-PSR-000112
T2	S3D	Grab	Ortho-Phosphate	C0001687	LPRP-SVCG-PSR-000127
T2	S1-S5	Composite	Particulate Organic Carbon (POC)	C0001607	LPRP-SVCG-PSR-000101
T2	S2D-S4D	Composite	Particulate Organic Carbon (POC)	C0001610	LPRP-SVCG-PSR-000119
T2	S3	Grab	Semivolatile Organic Compounds (SVOC)	C0001692	LPRP-SVCG-PSR-000109
T2	S3D	Grab	Semivolatile Organic Compounds (SVOC)	C0001693	LPRP-SVCG-PSR-000124
T2	S1	Grab	Total Suspended Solids (TSS)	C0001668	LPRP-SVCG-PSR-000104
T2	S2	Grab	Total Suspended Solids (TSS)	C0001669	LPRP-SVCG-PSR-000105
T2	S3	Grab	Total Suspended Solids (TSS)	C0001672	LPRP-SVCG-PSR-000106
T2	S4	Grab	Total Suspended Solids (TSS)	C0001673	LPRP-SVCG-PSR-000107
T2	S2D	Grab	Total Suspended Solids (TSS)	C0001670	LPRP-SVCG-PSR-000132
T2	S3D	Grab	Total Suspended Solids (TSS)	C0001671	LPRP-SVCG-PSR-000133
T2	S5	Grab	Total Suspended Solids (TSS)	C0001675	LPRP-SVCG-PSR-000134
T2	S4D	Grab	Total Suspended Solids (TSS)	C0001674	LPRP-SVCG-PSR-000338
T2	S3	Grab	Volatile Organic Compounds (VOC)	C0001683	LPRP-SVCG-PSR-000111
T2	S3D	Grab	Volatile Organic Compounds (VOC)	C0001682	LPRP-SVCG-PSR-000126
Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T3	S1-S5	Composite	Dissolved Organic Carbon (DOC)	C0001659	LPRP-SVCG-PSR-000249
T3	S2D-S4D	Composite	Dissolved Organic Carbon (DOC)	C0001658	LPRP-SVCG-PSR-000258
T3	S1-S5	Composite	Mercury/Methylmercury Filter	C0002322	LPRP-SVCG-PSR-000252
T3	S2D-S4D	Composite	Mercury/Methylmercury Filter	C0002319	LPRP-SVCG-PSR-000261
T3	S1-S5	Composite	Mercury/Methylmercury Total	C0001596	LPRP-SVCG-PSR-000251
T3	S2D-S4D	Composite	Mercury/Methylmercury Total	C0001599	LPRP-SVCG-PSR-000260
T3	S1-S5	Composite	Metals Filter	C0001641	LPRP-SVCG-PSR-000242
T3	S2D-S4D	Composite	Metals Filter	C0001678	LPRP-SVCG-PSR-000256
T3	S1-S5	Composite	Metals Total	C0001616	LPRP-SVCG-PSR-000250
T3	S2D-S4D	Composite	Metals Total	C0001614	LPRP-SVCG-PSR-000259
T3	S1-S5	Composite	Particulate Organic Carbon (POC)	C0001608	LPRP-SVCG-PSR-000248
T3	S2D-S4D	Composite	Particulate Organic Carbon (POC)	C0001609	LPRP-SVCG-PSR-000257
T3	S1	Grab	Total Suspended Solids (TSS)	C0001667	LPRP-SVCG-PSR-000243
T3	S2	Grab	Total Suspended Solids (TSS)	C0001660	LPRP-SVCG-PSR-000244
T3	S3	Grab	Total Suspended Solids (TSS)	C0001661	LPRP-SVCG-PSR-000245
T3	S4	Grab	Total Suspended Solids (TSS)	C0001666	LPRP-SVCG-PSR-000246
T3	S5	Grab	Total Suspended Solids (TSS)	C0001665	LPRP-SVCG-PSR-000247
T3	S2D	Grab	Total Suspended Solids (TSS)	C0001663	LPRP-SVCG-PSR-000253
T3	S3D	Grab	Total Suspended Solids (TSS)	C0001662	LPRP-SVCG-PSR-000254
T3	S4D	Grab	Total Suspended Solids (TSS)	C0001664	LPRP-SVCG-PSR-000255
Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
QC/QA	QC/QA	Grab	Trip Blank for Volatile Organic Compounds	C0002370	LPRP-TRIP-AQU-000001
QC/QA	QC/QA	Composite	Field Blank for Mercury/Methylmercury Total	C0001600	LPRP-SVCG-PSR-000336
QC/QA	QC/QA	Composite	Field Blank for Mercury/Methylmercury Filter	C0002318	LPRP-SVCG-PSR-000337

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Small Volume Water Column Program
(November 8 and 10, 2005)

Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T1	S1-S5	Composite	Dissolved Organic Carbon (DOC)	C0002350	LPRP-SVCG-PSR-000264
T1	S1D-S3D	Composite	Dissolved Organic Carbon (DOC)	C0002352	LPRP-SVCG-PSR-000265
T1	S1-S5	Composite	Mercury/Methylmercury Filter	C0002355	LPRP-SVCG-PSR-000277
T1	S1D-S3D	Composite	Mercury/Methylmercury Filter	C0002329	LPRP-SVCG-PSR-000278
T1	S1-S5	Composite	Mercury/Methylmercury Total	C0001617	LPRP-SVCG-PSR-000277
T1	S1D-S3D	Composite	Mercury/Methylmercury Total	C0001620	LPRP-SVCG-PSR-000278
T1	S1-S5	Composite	Metals Filter	C0002204	LPRP-SVCG-PSR-000280
T1	S1D-S3D	Composite	Metals Filter	C0002201	LPRP-SVCG-PSR-000281
T1	S1-S5	Composite	Metals Total	C0002438	LPRP-SVCG-PSR-000276
T1	S1D-S3D	Composite	Metals Total	C0002442	LPRP-SVCG-PSR-000279
T1	S1-S5	Composite	Particulate Organic Carbon (POC)	C0002209	LPRP-SVCG-PSR-000262
T1	S1D-S3D	Composite	Particulate Organic Carbon (POC)	C0002208	LPRP-SVCG-PSR-000263
T1	S3	Grab	Total Suspended Solids (TSS)	C0002215	LPRP-SVCG-PSR-000266
T1	S5	Grab	Total Suspended Solids (TSS)	C0002213	LPRP-SVCG-PSR-000267
T1	S2D	Grab	Total Suspended Solids (TSS)	C0002220	LPRP-SVCG-PSR-000268
T1	S1D	Grab	Total Suspended Solids (TSS)	C0002218	LPRP-SVCG-PSR-000269
T1	S4	Grab	Total Suspended Solids (TSS)	C0002214	LPRP-SVCG-PSR-000270
T1	S1	Grab	Total Suspended Solids (TSS)	C0002217	LPRP-SVCG-PSR-000271
T1	S3D	Grab	Total Suspended Solids (TSS)	C0002219	LPRP-SVCG-PSR-000272
T1	S2	Grab	Total Suspended Solids (TSS)	C0002216	LPRP-SVCG-PSR-000273
Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T2	S3D	Grab	Ammonia	C0002484	LPRP-SVCG-PSR-000291
T2	S3	Grab	Ammonia	C0002483	LPRP-SVCG-PSR-000292
T2	S3D	Grab	Biological Oxygen Demand (BOD)	C0002480	LPRP-SVCG-PSR-000287
T2	S3	Grab	Biological Oxygen Demand (BOD)	C0002479	LPRP-SVCG-PSR-000288
T2	S3	Grab	Chlorinated Herbicides	C0002449	LPRP-SVCG-PSR-000297
T2	S3D	Grab	Chlorinated Herbicides	C0002448	LPRP-SVCG-PSR-000298
T2	S3	Grab	Chlorophyll A	C0002436	LPRP-SVCG-PSR-000282
T2	S3D	Grab	Chlorophyll A	C0002437	LPRP-SVCG-PSR-000283
T2	S3D	Grab	COD/TKN/Total P	C0002486	LPRP-SVCG-PSR-000295
T2	S3	Grab	COD/TKN/Total P	C0002485	LPRP-SVCG-PSR-000296
T2	S3D	Grab	Cyanide	C0002348	LPRP-SVCG-PSR-000310
T2	S3	Grab	Cyanide	C0002346	LPRP-SVCG-PSR-000311
T2	S1-S5	Composite	Dissolved Organic Carbon (DOC)	C0002353	LPRP-SVCG-PSR-000286
T2	S1D-S3D	Composite	Dissolved Organic Carbon (DOC)	C0002351	LPRP-SVCG-PSR-000309
T2	S1D-S3D	Composite	Mercury/Methylmercury Filter	C0002325	LPRP-SVCG-PSR-000312
T2	S1-S5	Composite	Mercury/Methylmercury Filter	C0002328	LPRP-SVCG-PSR-000313
T2	S1D-S3D	Composite	Mercury/Methylmercury Total	C0001621	LPRP-SVCG-PSR-000312
T2	S1-S5	Composite	Mercury/Methylmercury Total	C0001618	LPRP-SVCG-PSR-000313
T2	S1-S5	Composite	Metals Filter	C0002202	LPRP-SVCG-PSR-000316
T2	S1D-S3D	Composite	Metals Filter	C0002206	LPRP-SVCG-PSR-000317
T2	S1-S5	Composite	Metals Total	C0002439	LPRP-SVCG-PSR-000314
T2	S1D-S3D	Composite	Metals Total	C0002445	LPRP-SVCG-PSR-000315
T2	S3D	Grab	Ortho-Phosphate	C0002482	LPRP-SVCG-PSR-000293
T2	S3	Grab	Ortho-Phosphate	C0002481	LPRP-SVCG-PSR-000294
T2	S1-S5	Composite	Particulate Organic Carbon (POC)	C0002212	LPRP-SVCG-PSR-000284
T2	S1D-S3D	Composite	Particulate Organic Carbon (POC)	C0002211	LPRP-SVCG-PSR-000285
T2	S3	Grab	Semivolatile Organic Compounds (SVOC)	C0002454	LPRP-SVCG-PSR-000305
T2	S3D	Grab	Semivolatile Organic Compounds (SVOC)	C0002455	LPRP-SVCG-PSR-000306
T2	S2D	Grab	Total Suspended Solids (TSS)	C0002337	LPRP-SVCG-PSR-000289
T2	S1	Grab	Total Suspended Solids (TSS)	C0002334	LPRP-SVCG-PSR-000290
T2	S4	Grab	Total Suspended Solids (TSS)	C0002331	LPRP-SVCG-PSR-000299
T2	S3	Grab	Total Suspended Solids (TSS)	C0002332	LPRP-SVCG-PSR-000300
T2	S5	Grab	Total Suspended Solids (TSS)	C0002330	LPRP-SVCG-PSR-000301
T2	S3D	Grab	Total Suspended Solids (TSS)	C0002336	LPRP-SVCG-PSR-000302
T2	S1D	Grab	Total Suspended Solids (TSS)	C0002335	LPRP-SVCG-PSR-000303
T2	S2	Grab	Total Suspended Solids (TSS)	C0002333	LPRP-SVCG-PSR-000304
T2	S3	Grab	Volatile Organic Compounds (VOC)	C0002453	LPRP-SVCG-PSR-000307
T2	S3D	Grab	Volatile Organic Compounds (VOC)	C0002452	LPRP-SVCG-PSR-000308
Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T3	S1D-S3D	Composite	Dissolved Organic Carbon (DOC)	C0002349	LPRP-SVCG-PSR-000320
T3	S1-S5	Composite	Dissolved Organic Carbon (DOC)	C0002354	LPRP-SVCG-PSR-000321
T3	S1-S5	Composite	Mercury/Methylmercury Filter	C0002356	LPRP-SVCG-PSR-000330
T3	S1D-S3D	Composite	Mercury/Methylmercury Filter	C0002326	LPRP-SVCG-PSR-000331
T3	S1-S5	Composite	Mercury/Methylmercury Total	C0001619	LPRP-SVCG-PSR-000330
T3	S1D-S3D	Composite	Mercury/Methylmercury Total	C0001622	LPRP-SVCG-PSR-000331
T3	S1-S5	Composite	Metals Filter	C0002205	LPRP-SVCG-PSR-000334
T3	S1D-S3D	Composite	Metals Filter	C0002203	LPRP-SVCG-PSR-000335
T3	S1-S5	Composite	Metals Total	C0002440	LPRP-SVCG-PSR-000332
T3	S1D-S3D	Composite	Metals Total	C0002444	LPRP-SVCG-PSR-000333
T3	S1D-S3D	Composite	Particulate Organic Carbon (POC)	C0002207	LPRP-SVCG-PSR-000318
T3	S1-S5	Composite	Particulate Organic Carbon (POC)	C0002210	LPRP-SVCG-PSR-000319
T3	S5	Grab	Total Suspended Solids (TSS)	C0002338	LPRP-SVCG-PSR-000322
T3	S3D	Grab	Total Suspended Solids (TSS)	C0002344	LPRP-SVCG-PSR-000323
T3	S2	Grab	Total Suspended Solids (TSS)	C0002342	LPRP-SVCG-PSR-000324
T3	S2D	Grab	Total Suspended Solids (TSS)	C0002345	LPRP-SVCG-PSR-000325
T3	S1D	Grab	Total Suspended Solids (TSS)	C0002343	LPRP-SVCG-PSR-000326
T3	S3	Grab	Total Suspended Solids (TSS)	C0002340	LPRP-SVCG-PSR-000327
T3	S4	Grab	Total Suspended Solids (TSS)	C0002339	LPRP-SVCG-PSR-000328
T3	S1	Grab	Total Suspended Solids (TSS)	C0002341	LPRP-SVCG-PSR-000329

Attachment 1: Program Summary
 Small Volume Water Column Program
 (November 8 and 10, 2005)

Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
QC/QA	QC/QA	Composite	Field Blank for Mercury/Methylmercury Total	C0001623	LPRP-SVCG-PSR-000275
QC/QA	QC/QA	Composite	Field Blank for Mercury/Methylmercury Filter	C0002327	LPRP-SVCG-PSR-000275
T1	S1-S5	Composite	MD Metals Total	C0001712	LPRP-SVCG-PSR-000276-md
T1	S1-S5	Composite	MS Metals Total	C0002443	LPRP-SVCG-PSR-000276-ms
T1	S1-S5	Composite	MD Metals Filter	C0001714	LPRP-SVCG-PSR-000280-md
T1	S1-S5	Composite	MS Metals Filter	C0002200	LPRP-SVCG-PSR-000280-ms
T2	S3	Grab	MS Chlorinated Herbicides	C0002446	LPRP-SVCG-PSR-000297-ms
T2	S3	Grab	MSD Chlorinated Herbicides	C0001703	LPRP-SVCG-PSR-000297-msd
T2	S3D	Grab	MS Chlorinated Herbicides	C0002447	LPRP-SVCG-PSR-000298-ms
T2	S3D	Grab	MSD Chlorinated Herbicides	C0001704	LPRP-SVCG-PSR-000298-msd
T2	S3	Grab	MS Semivolatile Organic Compounds (SVOC)	C0002456	LPRP-SVCG-PSR-000305-ms
T2	S3	Grab	MSD Semivolatile Organic Compounds (SVOC)	C0001706	LPRP-SVCG-PSR-000305-msd
T2	S3D	Grab	MS Semivolatile Organic Compounds (SVOC)	C0002457	LPRP-SVCG-PSR-000306-ms
T2	S3D	Grab	MSD Semivolatile Organic Compounds (SVOC)	C0001707	LPRP-SVCG-PSR-000306-msd
T2	S3	Grab	MS Volatile Organic Compounds (VOC)	C0002450	LPRP-SVCG-PSR-000307-ms
T2	S3	Grab	MSD Volatile Organic Compounds (VOC)	C0001709	LPRP-SVCG-PSR-000307-msd
T2	S3D	Grab	MS Volatile Organic Compounds (VOC)	C0002451	LPRP-SVCG-PSR-000308-ms
T2	S3D	Grab	MSD Volatile Organic Compounds (VOC)	C0001710	LPRP-SVCG-PSR-000308-msd
T2	S3	Grab	MD Cyanide	C0001711	LPRP-SVCG-PSR-000311-md
T2	S3	Grab	MS Cyanide	C0002347	LPRP-SVCG-PSR-000311-ms
T2	S1-S5	Composite	MD Metals Total	C0001713	LPRP-SVCG-PSR-000314-md
T2	S1-S5	Composite	MS Metals Total	C0002441	LPRP-SVCG-PSR-000314-ms
T2	S1-S5	Composite	MD Metals Filter	C0001715	LPRP-SVCG-PSR-000316-md
T2	S1-S5	Composite	MS Metals Filter	C0002199	LPRP-SVCG-PSR-000316-ms
QC/QA	QC/QA	Grab	Trip Blank for Volatile Organic Compounds	C0001708	LPRP-TRIP-AQU-000002

Attachment 1: Program Summary
 Small Volume Water Column Program
 (November 8 and 10, 2005)

Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T1	S2D-S4D	Composite	Dissolved Organic Carbon (DOC)	C0002476	LPRP-SVCG-PSR-000009
T1	S1-S5	Composite	Dissolved Organic Carbon (DOC)	C0002473	LPRP-SVCG-PSR-000016
T1	S1-S5	Composite	Mercury/Methylmercury Filter	C0002364	LPRP-SVCG-PSR-000022
T1	S2D-S4D	Composite	Mercury/Methylmercury Filter	C0002360	LPRP-SVCG-PSR-000023
T1	S1-S5	Composite	Mercury/Methylmercury Total	C0001625	LPRP-SVCG-PSR-000022
T1	S2D-S4D	Composite	Mercury/Methylmercury Total	C0001628	LPRP-SVCG-PSR-000023
T1	S2D-S4D	Composite	Metals Filter	C0002224	LPRP-SVCG-PSR-000010
T1	S1-S5	Composite	Metals Filter	C0002221	LPRP-SVCG-PSR-000018
T1	S2D-S4D	Composite	Metals Total	C0002263	LPRP-SVCG-PSR-000011
T1	S1-S5	Composite	Metals Total	C0002262	LPRP-SVCG-PSR-000020
T1	S2D-S4D	Composite	Particulate Organic Carbon (POC)	C0002257	LPRP-SVCG-PSR-000008
T1	S1-S5	Composite	Particulate Organic Carbon (POC)	C0002259	LPRP-SVCG-PSR-000013
T1	S1	Grab	Total Suspended Solids (TSS)	C0002255	LPRP-SVCG-PSR-000001
T1	S2	Grab	Total Suspended Solids (TSS)	C0002254	LPRP-SVCG-PSR-000002
T1	S2D	Grab	Total Suspended Solids (TSS)	C0002253	LPRP-SVCG-PSR-000003
T1	S3	Grab	Total Suspended Solids (TSS)	C0002252	LPRP-SVCG-PSR-000004
T1	S3D	Grab	Total Suspended Solids (TSS)	C0002251	LPRP-SVCG-PSR-000005
T1	S4	Grab	Total Suspended Solids (TSS)	C0002250	LPRP-SVCG-PSR-000006
T1	S4D	Grab	Total Suspended Solids (TSS)	C0002249	LPRP-SVCG-PSR-000007
T1	S5	Grab	Total Suspended Solids (TSS)	C0002248	LPRP-SVCG-PSR-000012
Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T2	S3	Grab	Ammonia	C0001689	LPRP-SVCG-PSR-000029
T2	S3D	Grab	Ammonia	C0001688	LPRP-SVCG-PSR-000043
T2	S3	Grab	Biological Oxygen Demand (BOD)	C0002229	LPRP-SVCG-PSR-000035
T2	S3D	Grab	Biological Oxygen Demand (BOD)	C0002228	LPRP-SVCG-PSR-000042
T2	S3	Grab	Chlorinated Herbicides	C0002461	LPRP-SVCG-PSR-000033
T2	S3D	Grab	Chlorinated Herbicides	C0002460	LPRP-SVCG-PSR-000047
T2	S3	Grab	Chlorophyll A	C0002465	LPRP-SVCG-PSR-000031
T2	S3D	Grab	Chlorophyll A	C0002464	LPRP-SVCG-PSR-000046
T2	S3	Grab	COD/TKN/Total P	C0002468	LPRP-SVCG-PSR-000032
T2	S3D	Grab	COD/TKN/Total P	C0002467	LPRP-SVCG-PSR-000044
T2	S3	Grab	Cyanide	C0002470	LPRP-SVCG-PSR-000037
T2	S3D	Grab	Cyanide	C0002469	LPRP-SVCG-PSR-000040
T2	S2D-S4D	Composite	Dissolved Organic Carbon (DOC)	C0002475	LPRP-SVCG-PSR-000054
T2	S1-S5	Composite	Dissolved Organic Carbon (DOC)	C0002472	LPRP-SVCG-PSR-000059
T2	S2D-S4D	Composite	Mercury/Methylmercury Filter	C0002359	LPRP-SVCG-PSR-000055
T2	S1-S5	Composite	Mercury/Methylmercury Filter	C0002362	LPRP-SVCG-PSR-000057
T2	S2D-S4D	Composite	Mercury/Methylmercury Total	C0001629	LPRP-SVCG-PSR-000055
T2	S1-S5	Composite	Mercury/Methylmercury Total	C0001626	LPRP-SVCG-PSR-000057
T2	S2D-S4D	Composite	Metals Filter	C0002223	LPRP-SVCG-PSR-000053
T2	S1-S5	Composite	Metals Filter	C0002226	LPRP-SVCG-PSR-000061
T2	S2D-S4D	Composite	Metals Total	C0001637	LPRP-SVCG-PSR-000052
T2	S1-S5	Composite	Metals Total	C0001638	LPRP-SVCG-PSR-000060
T2	S3	Grab	Ortho-Phosphate	C0002230	LPRP-SVCG-PSR-000034
T2	S3D	Grab	Ortho-Phosphate	C0002231	LPRP-SVCG-PSR-000041
T2	S2D-S4D	Composite	Particulate Organic Carbon (POC)	C0002260	LPRP-SVCG-PSR-000051
T2	S1-S5	Composite	Particulate Organic Carbon (POC)	C0002258	LPRP-SVCG-PSR-000058
T2	S3	Grab	Semivolatile Organic Compounds (SVOC)	C0002458	LPRP-SVCG-PSR-000036
T2	S3D	Grab	Semivolatile Organic Compounds (SVOC)	C0002459	LPRP-SVCG-PSR-000045
T2	S1	Grab	Total Suspended Solids (TSS)	C0002247	LPRP-SVCG-PSR-000025
T2	S2	Grab	Total Suspended Solids (TSS)	C0002246	LPRP-SVCG-PSR-000026
T2	S2D	Grab	Total Suspended Solids (TSS)	C0002244	LPRP-SVCG-PSR-000027
T2	S3	Grab	Total Suspended Solids (TSS)	C0002245	LPRP-SVCG-PSR-000028
T2	S3D	Grab	Total Suspended Solids (TSS)	C0002243	LPRP-SVCG-PSR-000039
T2	S4	Grab	Total Suspended Solids (TSS)	C0002242	LPRP-SVCG-PSR-000049
T2	S4D	Grab	Total Suspended Solids (TSS)	C0002241	LPRP-SVCG-PSR-000050
T2	S5	Grab	Total Suspended Solids (TSS)	C0002240	LPRP-SVCG-PSR-000056
T2	S3	Grab	Volatile Organic Compounds (VOC)	C0002462	LPRP-SVCG-PSR-000038
T2	S3D	Grab	Volatile Organic Compounds (VOC)	C0002463	LPRP-SVCG-PSR-000048
Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T1	S1-S5	Composite	Duplicate Mercury/Methylmercury Total	C0001676	LPRP-SVCG-PSR-000021
T1	S1-S5	Composite	Duplicate Particulate Organic Carbon (POC)	C0002256	LPRP-SVCG-PSR-000014
T1	S1-S5	Composite	Duplicate Mercury/Methylmercury Filter	C0002363	LPRP-SVCG-PSR-000021
T2	S3	Grab	Duplicate Chlorophyll A	C0002466	LPRP-SVCG-PSR-000030
T1	S1-S5	Composite	Duplicate Dissolved Organic Carbon (DOC)	C0002477	LPRP-SVCG-PSR-000015
T1	S1-S5	Composite	Duplicate Metals Total	C0001640	LPRP-SVCG-PSR-000019
T1	S1-S5	Composite	Duplicate Metals Filter	C0002225	LPRP-SVCG-PSR-000017
QC/QA	QC/QA	Composite	Field Blank for Mercury/Methylmercury Total	C0001631	LPRP-SVCG-PSR-000024
QC/QA	QC/QA	Composite	Field Blank for Mercury/Methylmercury Filter	C0002358	LPRP-SVCG-PSR-000024
QC/QA	QC/QA	Grab	Rinsate Cyanide	C0001695	LPRP-RINS-ATE-000013
QC/QA	QC/QA	Grab	Rinsate Ortho-Phosphate	C0001696	LPRP-RINS-ATE-000013
QC/QA	QC/QA	Grab	Rinsate Chlorinated Herbicides	C0001697	LPRP-RINS-ATE-000013
QC/QA	QC/QA	Grab	Rinsate Semivolatile Organic Compounds (SVOC)	C0001699	LPRP-RINS-ATE-000013
QC/QA	QC/QA	Grab	Rinsate Volatile Organic Compounds (VOC)	C0001701	LPRP-RINS-ATE-000013
QC/QA	QC/QA	Grab	Rinsate Metals Total	C0001702	LPRP-RINS-ATE-000013
QC/QA	QC/QA	Grab	Rinsate COD/TKN/Total P	C0002433	LPRP-RINS-ATE-000013
QC/QA	QC/QA	Grab	Rinsate Metals Filter	C0002434	LPRP-RINS-ATE-000013
QC/QA	QC/QA	Grab	Trip Blank for Volatile Organic Compounds	C0002396	LPRP-TRIP-AQU-000003

Attachment 1: Program Summary
 Small Volume Water Column Program
 (November 8 and 10, 2005)

Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T1	S1-S5	Composite	Dissolved Organic Carbon (DOC)	C0002269	LPRP-SVCG-PSR-000067
T1	S1-S5	Composite	Mercury/Methylmercury Filter	C0002365	LPRP-SVCG-PSR-000067
T1	S1-S5	Composite	Mercury/Methylmercury Total	C0001636	LPRP-SVCG-PSR-000067
T1	S1-S5	Composite	Metals Filter	C0002276	LPRP-SVCG-PSR-000067
T1	S1-S5	Composite	Metals Total	C0002273	LPRP-SVCG-PSR-000067
T1	S1-S5	Composite	Particulate Organic Carbon (POC)	C0002266	LPRP-SVCG-PSR-000067
T1	S1	Grab	Total Suspended Solids (TSS)	C0002290	LPRP-SVCG-PSR-000062
T1	S2	Grab	Total Suspended Solids (TSS)	C0002292	LPRP-SVCG-PSR-000063
T1	S3	Grab	Total Suspended Solids (TSS)	C0002293	LPRP-SVCG-PSR-000064
T1	S4	Grab	Total Suspended Solids (TSS)	C0002294	LPRP-SVCG-PSR-000065
T1	S5	Grab	Total Suspended Solids (TSS)	C0002291	LPRP-SVCG-PSR-000066
Time	Nodes	Composite/Grab	Analysis	Container Number	
T2	S3	Grab	Ammonia	C0002307	LPRP-SVCG-PSR-000235
T2	S3	Grab	Biological Oxygen Demand (BOD)	C0002301	LPRP-SVCG-PSR-000235
T2	S3	Grab	Chlorinated Herbicides	C0002315	LPRP-SVCG-PSR-000235
T2	S3	Grab	Chlorophyll A	C0002304	LPRP-SVCG-PSR-000090
T2	S3	Grab	Chlorophyll A	C0002305	LPRP-SVCG-PSR-000090
T2	S3	Grab	COD/TKN/Total P	C0002302	LPRP-SVCG-PSR-000235
T2	S3	Grab	Cyanide	C0002312	LPRP-SVCG-PSR-000235
T2	S1-S5	Composite	Dissolved Organic Carbon (DOC)	C0002271	LPRP-SVCG-PSR-000234
T2	S1-S5	Composite	Mercury/Methylmercury Filter	C0002369	LPRP-SVCG-PSR-000234
T2	S1-S5	Composite	Mercury/Methylmercury Total	C0001633	LPRP-SVCG-PSR-000237
T2	S1-S5	Composite	Metals Filter	C0002272	LPRP-SVCG-PSR-000234
T2	S1-S5	Composite	Metals Total	C0002279	LPRP-SVCG-PSR-000235
T2	S3	Grab	Ortho-Phosphate	C0002311	LPRP-SVCG-PSR-000235
T2	S1-S5	Composite	Particulate Organic Carbon (POC)	C0002267	LPRP-SVCG-PSR-000234
T2	S3	Grab	Semivolatile Organic Compounds (SVOC)	C0002317	LPRP-SVCG-PSR-000235
T2	S1	Grab	Total Suspended Solids (TSS)	C0002280	LPRP-SVCG-PSR-000224
T2	S2	Grab	Total Suspended Solids (TSS)	C0002285	LPRP-SVCG-PSR-000226
T2	S3	Grab	Total Suspended Solids (TSS)	C0002287	LPRP-SVCG-PSR-000228
T2	S4	Grab	Total Suspended Solids (TSS)	C0002288	LPRP-SVCG-PSR-000230
T2	S5	Grab	Total Suspended Solids (TSS)	C0002289	LPRP-SVCG-PSR-000232
T2	S3	Grab	Volatile Organic Compounds (VOC)	C0002309	LPRP-SVCG-PSR-000235
Time	Nodes	Composite/Grab	Analysis	Container Number	
T3	S1-S5	Composite	Dissolved Organic Carbon (DOC)	C0002270	LPRP-SVCG-PSR-000097
T3	S1-S5	Composite	Mercury/Methylmercury Filter	C0002367	LPRP-SVCG-PSR-000097
T3	S1-S5	Composite	Mercury/Methylmercury Total	C0001634	LPRP-SVCG-PSR-000097
T3	S1-S5	Composite	Metals Filter	C0002278	LPRP-SVCG-PSR-000097
T3	S1-S5	Composite	Metals Total	C0002275	LPRP-SVCG-PSR-000097
T3	S1-S5	Composite	Particulate Organic Carbon (POC)	C0002265	LPRP-SVCG-PSR-000097
T3	S1	Grab	Total Suspended Solids (TSS)	C0002299	LPRP-SVCG-PSR-000092
T3	S2	Grab	Total Suspended Solids (TSS)	C0002298	LPRP-SVCG-PSR-000093
T3	S3	Grab	Total Suspended Solids (TSS)	C0002297	LPRP-SVCG-PSR-000094
T3	S4	Grab	Total Suspended Solids (TSS)	C0002296	LPRP-SVCG-PSR-000095
T3	S5	Grab	Total Suspended Solids (TSS)	C0002295	LPRP-SVCG-PSR-000096
Time	Nodes	Composite/Grab	Analysis	Container Number	
T1	S1-S5	Composite	Duplicate Mercury/Methylmercury Total	C0001632	LPRP-SVCG-PSR-000068
T1	S1-S5	Composite	Duplicate Particulate Organic Carbon (POC)	C0002264	LPRP-SVCG-PSR-000068
T1	S1-S5	Composite	Duplicate Dissolved Organic Carbon (DOC)	C0002268	LPRP-SVCG-PSR-000068
T1	S1-S5	Composite	Duplicate Metals Total	C0002274	LPRP-SVCG-PSR-000068
T1	S1-S5	Composite	Duplicate Metals Filter	C0002277	LPRP-SVCG-PSR-000068
T1	S1-S5	Composite	Duplicate Mercury/Methylmercury Filter	C0002368	LPRP-SVCG-PSR-000068
T2	S3	Grab	Duplicate Chlorophyll A	C0001694	LPRP-SVCG-PSR-000091
T2	S3	Grab	Duplicate Total Suspended Solids (TSS)	C0002283	LPRP-SVCG-PSR-000225
T2	S3	Grab	Duplicate Total Suspended Solids (TSS)	C0002282	LPRP-SVCG-PSR-000227
T2	S3	Grab	Duplicate Total Suspended Solids (TSS)	C0002286	LPRP-SVCG-PSR-000229
T2	S3	Grab	Duplicate Total Suspended Solids (TSS)	C0002281	LPRP-SVCG-PSR-000231
T2	S3	Grab	Duplicate Total Suspended Solids (TSS)	C0002284	LPRP-SVCG-PSR-000233
T2	S3	Grab	Duplicate Biological Oxygen Demand (BOD)	C0002300	LPRP-SVCG-PSR-000236
T2	S3	Grab	Duplicate COD/TKN/Total P	C0002303	LPRP-SVCG-PSR-000236
T2	S3	Grab	Duplicate Ammonia	C0002306	LPRP-SVCG-PSR-000236
T2	S3	Grab	Duplicate Volatile Organic Compounds (VOC)	C0002308	LPRP-SVCG-PSR-000236
T2	S3	Grab	Duplicate Ortho-Phosphate	C0002310	LPRP-SVCG-PSR-000236
T2	S3	Grab	Duplicate Cyanide	C0002313	LPRP-SVCG-PSR-000236
T2	S3	Grab	Duplicate Chlorinated Herbicides	C0002314	LPRP-SVCG-PSR-000236
T2	S3	Grab	Duplicate Semivolatile Organic Compounds (SVOC)	C0002316	LPRP-SVCG-PSR-000236
QC/QA	QC/QA	Composite	Field Blank for Mercury/Methylmercury Total	C0001635	LPRP-SVCG-PSR-000238
QC/QA	QC/QA	Composite	Field Blank for Mercury/Methylmercury Filter	C0002366	LPRP-SVCG-PSR-000238
QC/QA	QC/QA	Grab	Trip Blank for Volatile Organic Compounds	C0001705	LPRP-TRIP-AQU-000004

Attachment 1: Program Summary
 Small Volume Water Column Program
 (November 8 and 10, 2005)

Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T1	S1	Grab	Ammonia	C0002404	LPRP-SVCG-PSR-000354
T1	S1	Grab	Dissolved Organic Carbon (DOC)	C0002405	LPRP-SVCG-PSR-000355
T1	S1	Grab	Chlorinated Herbicides	C0002407	LPRP-SVCG-PSR-000356
T1	S1	Grab	Metals Total	C0002403	LPRP-SVCG-PSR-000357
T1	S1	Grab	Total Suspended Solids (TSS)	C0002408	LPRP-SVCG-PSR-000358
T1	S1	Grab	Semivolatile Organic Compounds (SVOC)	C0002412	LPRP-SVCG-PSR-000359
T1	S1	Grab	Ortho-Phosphate	C0002415	LPRP-SVCG-PSR-000360
T1	S1	Grab	Metals Filter	C0002413	LPRP-SVCG-PSR-000361
T1	S1	Grab	COD/TKN/Total P	C0002410	LPRP-SVCG-PSR-000362
T1	S1	Grab	Particulate Organic Carbon (POC)	C0002411	LPRP-SVCG-PSR-000363
T1	S1	Grab	Biological Oxygen Demand (BOD)	C0002414	LPRP-SVCG-PSR-000364
T1	S1	Grab	Cyanide	C0002420	LPRP-SVCG-PSR-000365
T1	S1	Grab	Volatile Organic Compounds (VOC)	C0002402	LPRP-SVCG-PSR-000366
T1	S1	Grab	Chlorophyll A	C0002401	LPRP-SVCG-PSR-000367
T1	S1	Grab	Mercury/Methylmercury Total	C0002397	LPRP-SVCG-PSR-000368
T1	S1	Grab	Mercury/Methylmercury Filter	C0002398	LPRP-SVCG-PSR-000368
Time	Nodes	Composite/Grab	Analysis	Container Number	
QC/QA	QC/QA	Grab	Trip Blank for Volatile Organic Compounds	C0002491	LPRP-TRIP-AQU-000005

Attachment 1: Program Summary
 Small Volume Water Column Program
 (November 8 and 10, 2005)

Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T1	S1	Grab	Mercury/Methylmercury Total	C0002399	LPRP-SVCG-PSR-000353
T1	S1	Grab	Mercury/Methylmercury Filter	C0002400	LPRP-SVCG-PSR-000353
T1	S1	Grab	Total Suspended Solids (TSS)	C0002417	LPRP-SVCG-PSR-000346
T1	S1	Grab	Particulate Organic Carbon (POC)	C0002416	LPRP-SVCG-PSR-000348
T1	S1	Grab	Volatile Organic Compounds (VOC)	C0002418	LPRP-SVCG-PSR-000352
T1	S1	Grab	Biological Oxygen Demand (BOD)	C0002422	LPRP-SVCG-PSR-000347
T1	S1	Grab	Ammonia	C0002423	LPRP-SVCG-PSR-000349
T1	S1	Grab	Metals Total	C0002424	LPRP-SVCG-PSR-000345
T1	S1	Grab	Dissolved Organic Carbon (DOC)	C0002425	LPRP-SVCG-PSR-000344
T1	S1	Grab	Semivolatile Organic Compounds (SVOC)	C0002426	LPRP-SVCG-PSR-000343
T1	S1	Grab	COD/TKN/Total P	C0002427	LPRP-SVCG-PSR-000350
T1	S1	Grab	Ortho-Phosphate	C0002428	LPRP-SVCG-PSR-000339
T1	S1	Grab	Cyanide	C0002429	LPRP-SVCG-PSR-000340
T1	S1	Grab	Metals Filter	C0002430	LPRP-SVCG-PSR-000341
T1	S1	Grab	Chlorophyll A	C0002431	LPRP-SVCG-PSR-000351
T1	S1	Grab	Chlorinated Herbicides	C0002432	LPRP-SVCG-PSR-000342
Time	Nodes	Composite/Grab	Analysis	Container Number	
QC/QA	QC/QA	Grab	Trip Blank for Volatile Organic Compounds	C0002491	LPRP-TRIP-AQU-000005

Attachment 1: Program Summary
 Small Volume Water Column Program
 (November 8 and 10, 2005)

Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T1	S1	Grab	Semivolatile Organic Compounds (SVOC)	C0002392	LPRP-SVCG-PSR-000369
T1	S1	Grab	Total Suspended Solids (TSS)	C0002421	LPRP-SVCG-PSR-000370
T1	S1	Grab	COD/TKN/Total P	C0002419	LPRP-SVCG-PSR-000371
T1	S1	Grab	Ortho-Phosphate	C0002395	LPRP-SVCG-PSR-000372
T1	S1	Grab	Biological Oxygen Demand (BOD)	C0002409	LPRP-SVCG-PSR-000373
T1	S1	Grab	Particulate Organic Carbon (POC)	C0002406	LPRP-SVCG-PSR-000374
T1	S1	Grab	Chlorinated Herbicides	C0002394	LPRP-SVCG-PSR-000375
T1	S1	Grab	Ammonia	C0002389	LPRP-SVCG-PSR-000376
T1	S1	Grab	Cyanide	C0002391	LPRP-SVCG-PSR-000377
T1	S1	Grab	Dissolved Organic Carbon (DOC)	C0002390	LPRP-SVCG-PSR-000378
T1	S1	Grab	Metals Filter	C0002386	LPRP-SVCG-PSR-000379
T1	S1	Grab	Chlorophyll A	C0002388	LPRP-SVCG-PSR-000380
T1	S1	Grab	Metals Total	C0002385	LPRP-SVCG-PSR-000381
T1	S1	Grab	Volatile Organic Compounds (VOC)	C0002387	LPRP-SVCG-PSR-000382
T1	S1	Grab	Mercury/Methylmercury Total	C0002487	LPRP-SVCG-PSR-000383
T1	S1	Grab	Mercury/Methylmercury Filter	C0002488	LPRP-SVCG-PSR-000383
Time	Nodes	Composite/Grab	Analysis	Container Number	
QC/QA	QC/QA	Grab	Trip Blank for Volatile Organic Compounds	C0002491	LPRP-TRIP-AQU-000005

Attachment 1: Program Summary
 Small Volume Water Column Program
 (November 8 and 10, 2005)

Time	Nodes	Composite/Grab	Analysis	Container Number	Sample ID
T1	S1	Grab	Dissolved Organic Carbon (DOC)	C0002371	LPRP-SVCG-PSR-000393
T1	S1	Grab	Ortho-Phosphate	C0002372	LPRP-SVCG-PSR-000387
T1	S1	Grab	Metals Total	C0002373	LPRP-SVCG-PSR-000396
T1	S1	Grab	Volatile Organic Compounds (VOC)	C0002374	LPRP-SVCG-PSR-000397
T1	S1	Grab	COD/TKN/Total P	C0002375	LPRP-SVCG-PSR-000386
T1	S1	Grab	Chlorophyll A	C0002376	LPRP-SVCG-PSR-000395
T1	S1	Grab	Semivolatile Organic Compounds (SVOC)	C0002377	LPRP-SVCG-PSR-000384
T1	S1	Grab	Cyanide	C0002378	LPRP-SVCG-PSR-000392
T1	S1	Grab	Chlorinated Herbicides	C0002379	LPRP-SVCG-PSR-000390
T1	S1	Grab	Particulate Organic Carbon (POC)	C0002380	LPRP-SVCG-PSR-000389
T1	S1	Grab	Biological Oxygen Demand (BOD)	C0002381	LPRP-SVCG-PSR-000388
T1	S1	Grab	Ammonia	C0002382	LPRP-SVCG-PSR-000391
T1	S1	Grab	Total Suspended Solids (TSS)	C0002383	LPRP-SVCG-PSR-000385
T1	S1	Grab	Metals Filter	C0002384	LPRP-SVCG-PSR-000394
T1	S1	Grab	Mercury/Methylmercury Total	C0002489	LPRP-SVCG-PSR-000398
T1	S1	Grab	Mercury/Methylmercury Filter	C0002490	LPRP-SVCG-PSR-000398
Time	Nodes	Composite/Grab	Analysis	Container Number	
QC/QA	QC/QA	Grab	Trip Blank for Volatile Organic Compounds	C0002491	LPRP-TRIP-AQU-000005

ATTACHMENT 2

Field Measurements

Attachment 2: Field Parameters
 for the Small Volume Water Column Program
 (November 8 and 10, 2005)

Boat	River Mile	Time	Depth	Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (degree C)	Salinity (percent)	Redox (mV)	pH value
Boat 1	RM1.0	T1	Top	9.0	7.0	9.77	12.6	0.5	174	5.85
		T1	Bottom	28.0	5.0	8.50	14.1	1.6	169	6.00
		T2	Top	22.2	5.5	10.19	14.2	1.4	151	6.43
		T2	Bottom	28.9	13.9	9.76	14.6	1.8	121	6.95
		T3	Top	25.6	5.0	10.60	14.3	1.5	127	7.10
		T3	Bottom	32.4	17.0	8.90	14.0	2.0	118	7.28
Boat 2	RM2.5	T1 (S3 node)	Top	4.0		8.67	12.5	0.2	107	7.26
		T1 (S3 node)	Bottom	18.7	13.6	7.14	14.0	1.1		6.98
		T2 (S2 node)	Top	21.0	10.0	8.45	14.1	1.4	44	
		T2 (S2 node)	Bottom	29.0	10.0	7.52	14.4	1.8	43	
		T2 (S3 node)	Top	20.1	32.1	8.11	13.8	1.2	44	8.11
		T2 (S3 node)	Bottom	27.7	60.0	7.22	14.1	1.7	50	8.15
		T2 (S3 node)	Top	22.5	37.1	5.30		1.4	163	
		T2 (S3 node)	Bottom	30.3	27.3	4.78	22.2	1.9	98	
		T2 (S4 node)	Top	20.0	23.0	5.50	19.3	0.1	90	
		T2 (S5 node)	Top	24.5	27.4	5.26	20.7	1.2	93	
		T3 (S5 node)	Top	20.8	15.7	7.27	15.8	1.3	86	
		T3 (S4 node)	Top	16.7	15.0	7.54	15.2	0.9	91	
		T3 (S3 node)	Top	12.7	13.0	5.50	22.0	0.7	100	
		T3 (S3 node)	Bottom	29.3	13.0	4.78	21.3	1.8	99	
		T3 (S2 node)	Top	16.2	12.3	6.95	16.3	0.9	99	
		T3 (S2 node)	Bottom	34.0	13.0	5.97	16.0	2.1	100	
		T3 (S1 node)	Top	17.7	12.3	7.31	14.0	1.1	101	
		T3 (S1 node)	Bottom	35.8	18.8	6.28	14.0	2.2	106	
Boat 3	RM4.5	T1	Top	48.9	12.7	11.39	12.4		78	6.16
		T1	Bottom	11.0	16.1	10.88	13.1		44	6.76
		T2	Top	8.3	138		12.8		24	7.14
		T2	Bottom	18.7		10.76	13.6		-39	6.87
Boat 4	RM10.5	T1	Top	63.9	0.2	11.03	12.6		120	6.78
		T2	Top	65.0	0.2	9.10	12.5		142	7.29
		T2 (re-sample)	Top	65.0	0.2	10.62	12.5		137	7.37
		T3	Top	63.9	0.2	10.80	12.5		141	7.38
Third River	Third River	T1	Top	35.7		13.69	12.2	<0.01	225	7.00
Second River	Second River	T1	Top	31.3		10.98	12.6	<0.01	188	7.83

** No field parameters collected at Saddle River and Ackerman Avenue Bridge.

* The first sampling pass (designated as T1) occurred approximately at 8:00AM (eastern standard time), the second pass (designated as T2) occurred approximately at 11:00AM (eastern standard time), and the third pass (designated as T3) occurred approximately at 2:00PM (eastern standard time). Note that the third pass for the boat at RM2.5 occurred much later than 2:00PM (eastern standard time) and captured the outgoing tide.

Attachment 2: Field Parameters
for the Small Volume Water Column Program
(November 8 and 10, 2005)

Boat	River Mile	Time	Node	Secchi Depth (inches)
Boat 2	RM2.5	T1	S3	39.4
		T2	S3	39.4
Boat 3	RM4.5	T1	S3	43.2
Boat 4	RM10.5	T1	S1	40.0
		T1	S2	44.5
		T1	S5	39.0
		T2	S5	35.0
		T2	S4	36.0
		T2	S3	37.0
		T2	S2	37.0
		T3	S4	39.0

** No Secchi disk measurements collected at RM1 or the tributary locations.
Secchi disk diameter = 20 centimeters